

AMENDMENTS TO THE CLAIMS:

Please cancel claim 23, without prejudice or disclaimer, and amend the claims as follows:

1-14. (Canceled)

15. (Currently Amended) A light-emitting device using a gallium nitride compound semiconductor comprising:

an emission layer with a multi quantum-well (MQW) structure, in which a barrier layer and a well layer are formed alternatively;

an n-layer comprising $\text{Al}_x\text{Ga}_{1-x}\text{N}$, wherein ~~$0 \leq x \leq 0.06$~~ $0.03 \leq x \leq 0.06$, having a thickness from ~~50 nm to 300 nm~~ 150 nm to 250 nm;

a substrate; and

a buffer layer formed on said substrate,

wherein said barrier layer is made of $\text{Al}_x\text{Ga}_{1-x}\text{N}$.

16. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 15, wherein said buffer layer is formed at a temperature of 1000°C to 1180°C.

17. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 15, wherein said buffer layer has a thickness of 0.01 μm to 3.2 μm

18. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 15, wherein said buffer layer is formed by physical vapor deposition including any of sputtering, ion plating, and laser-ablation.

19. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 18, wherein said buffer layer has a thickness of 100 Å to 3000 Å.

20. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 18, wherein said buffer layer is formed at a temperature of 200 °C to 600 °C.
21. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 18, wherein said buffer layer is treated by heat treatment at a temperature of 1000 °C to 1250 °C.
22. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 21, wherein said heat treatment is carried out in an atmosphere of H₂ and NH₃ gases.
23. (Canceled)
24. (Previously Presented) A light-emitting device using a gallium nitride compound semiconductor according to claim 15, wherein said well layer comprises In_yGa_{1-y}N, wherein 0<y<0.1.